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THE LAW OF OIL AND GAS*

INTRODUCTORY

NO thoughtful observer will presume to gainsay the all-important part which the oil business plays and will continue to play in the industrial, commercial and social life of the civilized world. Long before the great war this fact was deeply impressive, and was generally recognized. At the end of that conflict it was said with much truth that the Allies had floated to victory upon a sea of oil. Now, standing as we are at the threshold of a new era rich in industrial and commercial promise, no man can foresee nor even approximate the mighty expansion which will characterize the business in the near and more remote future. This much, however, appears certain. Petroleum products are now practically indispensable to the progress of modern industry and commerce. In a somewhat less degree they enter into almost every phase of the daily life of civilized peoples. Therefore, all other considerations aside, the growth and advancement of this pursuit will undoubtedly keep pace with the natural expansion in other lines of endeavor. But this assurance is a mere aspect of what the future holds for the oil business. No substance now known possesses within itself greater potential capacity to serve mankind. The chemical and physical researches of the industry calculated to discover new uses for petroleum and its products and to derive new properties therefrom are yet in their infancy. In view of the appalling economic crisis which confronts most of the countries, the science of the enterprise will put itself to the unceasing task

* This is the first of a series of papers on "The Law of Oil and Gas." These papers are based upon a course of lectures delivered by Mr. Veasey in the Law School during the second semester of 1919-1920. A graduate of the School in the class of 1902, Mr. Veasey's long experience in the field of oil and gas law—for some time he has been General Counsel of The Carter Oil Company—peculiarly fits him for the work which he has undertaken in these lectures and papers. The rest will follow in succeeding numbers.

THE EDITOR.

of extracting new values from petroleum and of finding new and more general uses for these new discoveries, as well as for discoveries made in the past. In these circumstances, pointing as they do to an enormous and ever-increasing demand for the commodity, the question of an adequate supply of crude material reaches the highest importance. Even now, with much of the industry and trade of the world in a state of partial paralysis, and with all of the American fields at least being exploited to their uttermost, the crude supply barely meets the demand. Whether this equilibrium can be maintained, or even approximated, when the normal activities of men are again fully resumed is at present a matter of gravest concern to the industry.

Under pressure of this serious economic condition the petroleum industry must bend its efforts toward the complete exploitation of the lands of the United States for oil. Already oil is being produced in seventeen of the American commonwealths, and in eleven other states large areas are held under lease and explorations on an extensive scale are in progress. Eventually every stretch of American soil which offers a reasonable hope of success in the business, and which is not condemned by operations conducted in the past, will be thoroughly tested for petroleum. In this posture of affairs a strange situation is observable. No industry involves greater property values, nor is there any enterprise where success is shrouded in more uncertainty or where failure is attended by greater financial loss. The Supreme Court of the United States, in *Twin-Lick Oil Company v. Marbury*, says: "The fluctuating character and value of this class of property is remarkably illustrated in the history of the production of mineral oil from wells. Property worth thousands today is worth nothing tomorrow; and that which would today sell for a thousand dollars as its fair value, may, by the natural changes of a week or the energy and courage of desperate enterprise, in the same time be made to yield that much every day. * * * the class of property here considered [is] subject to the most rapid, frequent, and violent fluctuations in value of anything known as property."¹ The enormous value of the property dealt with and the inherent uncertainty of the enterprise would seem imperatively to demand a system of jurisprudence which is specific and certain in the last degree. Unfortunately, however, the industry has been confronted with a condition directly to the contrary, for there is no branch of American law so obscure in decision, and so indefinite and conflicting in

¹ *Twin-Lick Oil Co. v. Marbury*, 91 U. S. 587 (1876).

authority, as the "Law of Oil and Gas." Although, finally, the courts of many jurisdictions reach a fairly sound conclusion on most of the important questions which characterize this branch of the law, these decisions were usually preceded by a series of ill-considered, conflicting and impractical holdings which not only embarrassed the courts in the decision of the later cases, but which defeated or partially defeated the efforts of the industry to adapt the prosecution of the business to those practical conditions which gave greater assurance of success. Strangely enough, the courts of the more recent oil-producing states have not profited by the experience of the older jurisdictions. The industry has been obliged to struggle against this peculiar posture of the cases in Oklahoma, Texas, Louisiana, and to a certain extent in Illinois, with the same vigor as characterized its efforts in that direction in Pennsylvania and West Virginia.

As long as the production of oil was confined to a few districts this subject was regarded by the legal profession generally as a narrow and distinct specialty. The members of the bar who then came in contact with the business were few in number. Accordingly, there was no substantial reason for the law schools of the country to give direct and comprehensive instruction in the jurisprudence. Now, however, the industry has broadened in its importance. The greater portions of Kansas, Oklahoma, Louisiana and Texas are now held under lease, and the work of testing for oil is general throughout the non-producing sections of those states. Moreover, all lands west of the Mississippi and vast areas in the southern states are now regarded as possible oil territory. Therefore, in these communities the bar generally will be brought into direct relation with the enterprise. When oil is once discovered in a locality there is a great and immediate enhancement of all property values therein. Oil leases are ordinarily subject to forfeiture for breach of conditions, and the unusual value of the lands involved invites widespread and persistent litigation. Moreover, the legal questions presented are usually complex and difficult. As a result of these conditions work in this specialty is decidedly lucrative. These considerations alone should attract the serious attention of the lawyer just entering the practice, but of even greater importance is the constructive work which lies in the path of the profession in the new oil states. In those jurisdictions the rules of decision on every question peculiar to the subject are yet to be established. It will lie with the members of the bar therein to forestall in some degree at least a repetition of the errors of the courts in

the earlier oil-producing states. The ability of the profession to accomplish this task will depend upon its grasp of the underlying principles of oil and gas law. In these circumstances the law schools of the country possess an unusual opportunity for serving the profession by offering special training in this novel jurisprudence. It was these considerations which influenced the faculty of the Law School of the University of Michigan to take the initiative in adding the "Law of Oil and Gas" to its curriculum.

When the breadth and complexity of the subject are taken into account it follows that there are many questions related to the inquiry which cannot be touched upon. The scope of these papers will be thus limited. To begin with, the fundamentals of the law of oil and gas will be treated comprehensively. In the second place, an attempt will be made to bring the student within the peculiar atmosphere of the whole range of oil and gas cases. If this effort proves successful much of the apparent conflict in the decisions will be dissipated, and a point of view will be provided for the consideration of the many incidental questions which a more extended research will disclose. Finally, it is intended that the lectures shall be practical in their tendency, to the end that the student shall obtain a ready and workable conception of the entire subject.

CHAPTER I

THE SUBJECT IN GENERAL

(1) *Elementary Considerations.*

It is commonly known that petroleum and natural gas are hydro-carbons usually discovered in sands, sandstones and limestones beneath the earth's surface. Sands and sandstones are the more usual reservoirs. Contrary to the popular impression, oil and gas do not accumulate in subterranean pools or streams in the sense that liquids collect upon the surface of the ground. They manifest their presence in the oil and gas sands by a saturation thereof. The capacity of the sands and sandstones to hold these fluids is dependent relatively upon the shape and arrangement of the grains. A loose, soft, and porous sand, if it contain oil, is more prolific in production under normal conditions than a hard or less pervious formation. This statement has judicial recognition.¹ Not infrequently a structure confines natural gas only, but as a general rule both oil and gas are found in the same deposit. When this condition obtains the gas is usually found in the upper reaches of

¹ *Kleppner v. Lemon*, 176 Pa. 502, 35 Atl. 109; *Hall v. South Penn Oil Co.*, 71 W. Va. 82, 76 S. E. 124.

the sand, while the oil, by reason of its specific gravity, is found in the lower sand. In the early life of many wells producing from a soft and porous sand the pressure of the gas or water inhabiting the structure where the oil is found causes the oil to flow. Within a comparatively short time, however, the pressure declines to such an extent as to necessitate the production of the oil by the process of pumping. The greater number of wells must be pumped from the beginning.²

Regardless of the experience of the operator and the advancement made in petroleum geology in recent years, the fact still remains that the drilling of a well is the only circumstance which will determine with certainty whether a particular tract of land is oil-bearing or not.³ In some fields a fair degree of reliance may be placed upon the geologic indications of the presence of oil. In other districts very little dependence can be placed upon these conditions. In a region where the outcroppings are relatively well-defined, petroleum geology is of assistance to the operator in the following particulars. By that means it may be determined with a fair degree of accuracy whether or not a structure favorable for the accumulation of oil and gas underlies the particular tract of land. Obviously, this information reduces the hazard of the venture. Furthermore, the probable depth of the sand regarded as promising by the geologist is susceptible of ascertainment, and a method for estimating the cost of the test well thereby provided. Finally, the data of the geologist indicate in a relative degree at least the most favorable location on the structure for the drilling of the well. The information thus afforded tends to prevent the drilling of wells on the edges of a geologic structure where the sand is usually thin and more likely to be unproductive than elsewhere in the particular deposit. These aids, while of decided value, fall immeasurably short of demonstrating the presence of oil or gas with certainty. The test by drilling is still indispensable. In recent years it has been the almost universal custom to locate wells in accordance with geologic data, supplemented, of course, by a due regard for development in the vicinity, if any. Notwithstanding these precautions, it is estimated that twenty-two per cent of the wells drilled in the year 1919 were failures. This record includes wells drilled in the immediate neighborhood of producing lands, where the uncertainty of the venture was not so pronounced. When wells in territory comparatively proved are eliminated, and when

² *Jennings v. Southern Carbon Co.*, 73 W. Va. 215, 80 S. E. 368.

³ *Consumers Gas Co. v. Lüttler*, 162 Ind. 320, 70 N. E. 363.

wild-cat wells alone are taken into consideration, it is probable that from seventy to seventy-five per cent. of the wells drilled are non-productive.

There are other important elements of uncertainty which characterize the business. There is a high degree of risk in the mere mechanical process of drilling a well to a great depth. Tools are lost in the hole, and unexpected formations are encountered which frequently necessitate the abandonment of the operation completely or the drilling of another well, which in turn is attended by the same general hazard. Wells are shot by immense charges of nitroglycerin designed to increase the production, and premature explosions which destroy the well or damage it greatly are of frequent occurrence. The financial loss incident to these failures becomes impressive when the assertion is made that the average cost of wells completed during the year 1919 was \$17,500. Even where the test well results in production the hazard of the enterprise continues. A dry hole will be drilled within a few feet of a large producing well. A failure will result where the well is located between or among producing wells, and then again, small wells are drilled in the immediate vicinity of large producers. After production is once realized on a lease the life of the well or wells is wholly uncertain. Where the wells are small at the beginning the operator must either contemplate an ultimate loss in the undertaking or a long and tedious effort to recover sufficient oil to repay him for his investment. Wells of large initial capacity oftentimes decline with great rapidity, and in some of the most promising districts water will find its way into the oil sand and either destroy or greatly impair the producing capacity of all wells therein. These general observations demonstrate that, despite the skill and experience of the operator and notwithstanding the teachings of modern geology, the prosecution of the oil business is attended by greater uncertainty in its results and is responsible for more financial disaster than is true of any other industry of the country, however speculative in character or tendency it may be. All questions which are to be here examined must be considered in the light of the inherent risks and hazards which characterize this peculiar enterprise throughout.

(2) *The Fugacious Character of Oil and Gas.*

No question to be examined rises to higher importance than the one here suggested. This subject will be comprehended to the exact extent that we reach a clear and definite understanding of the peculiar nature and habits of oil and gas. Practical operators and petroleum geologists agree upon the proposition that oil and

gas, after their original accumulation in the structure which they inhabit, do not migrate laterally to an appreciable extent under normal conditions. These substances possess the qualities of fluids, however, and when a well taps the producing strata the oil and gas, influenced by the rock pressure, are inclined to seek this opening; and accordingly each well drains a greater or less area within the structure. Therefore, when a particular well is near the boundary of a tract of land, and where both tracts are underlaid by a common deposit, a portion of the production from the well may be drawn from the adjacent premises. It is this wandering and fugitive tendency of oil and gas which is entirely responsible for the evolution of the law of oil and gas. Were it not for this attribute, which at once distinguishes these substances from solid minerals, which maintain their *situs* until removed by mining, the law of mines, supplemented, perhaps, by certain principles taken from the law of landlord and tenant, would control the decision of all questions relating to the subject. As it is, all legal rules peculiar to the law of mines must be applied to the decision of any question touching oil and gas in a qualified sense only, and with a due regard to the fugitive character of the property dealt with.⁴ It is worthy of comment that the vagrant character of oil and gas was clearly recognized by the first reported case on the subject, although the case was decided some years before the mining of oil and gas attained commercial importance.⁵ In one of the early Pennsylvania cases it is said: "The discovery of petroleum led to new forms of leasing land. Its fugitive and wandering existence within the limits of a particular tract was uncertain, and assumed certainty only by actual development founded upon experiment."⁶ The courts take judicial notice of this propensity,⁷ and this peculiar habit is now universally recognized by the courts in the oil states.⁸ Gas being

⁴ *Westmoreland Gas Co. v. DeWitt*, 130 Pa. 235, 18 Atl. 724 (1889); *Ohio Oil Co. v. Indiana*, 177 U. S. 190 (1900); *Brown v. Spilman*, 155 U. S. 665 (1895).

⁵ *Hail v. Reed*, 15 B. Munroe (Ky.) 479 (1854).

⁶ *Brown v. Vandergrift*, 80 Pa. 142 (1875).

⁷ *Barnard v. Monongahela Gas Co.*, 216 Pa. 362, 65 Atl. 801 (1907); *Brown v. Spilman*, *supra*; *Gillette v. Mitchell*, 214 S. W. (Tex.) 619 (1919); *Huggins v. Daley*, 99 Fed. 606 (1900).

⁸ *Hague v. Wheeler*, 157 Pa. 324, 27 Atl. 714 (1893); *Wettengel v. Gormley*, 160 Pa. 559, 28 Atl. 934 (1894); *Burgan v. South Penn Oil Co.*, 243 Pa. 128, 89 Atl. 823 (1914); *Hall v. Vernon*, 47 W. Va. 295, 34 S. E. 764 (1899); *Preston v. White*, 57 W. Va. 278, 50 S. E. 236 (1905); *Kelly v. Ohio Oil Co.*, 57 Ohio St. 317, 49 N. E. 399 (1897); *Manufacturers' Gas Co. v. Indiana Gas Co.*, 155 Ind. 566, 57 N. E. 912 (1900); *Northwestern Ohio Gas Co. v. Ullery*, 68 Ohio St. 259, 67 N. E. 494 (1903); *Poe v. Ulrey*, 233 Ill. 56, 84 N. E. 46 (1908); *Watford Oil & Gas Co. v. Shipman*, 233 Ill. 9, 84 N. E. 53 (1908); *Fairbanks v. Warrum*, 56 Ind. App. 337, 104 N. E. 983 (1914); *Murray v. Allard*, 100 Tenn. 100, 43 S. W. 355 (1897); *Louisville Gas Co. v. Kentucky Heating Co.*, 117 Ky. 71, 77 S. W. 368 (1903); *Louisville Gas Co. v. Kentucky Heating Co.*, 132

volatile, the substance has a greater tendency to migrate than oil.⁹ The following quotations from some of the opinions illustrate the viewpoint of the courts upon the question of drainage by adjacent wells: "From common knowledge of the character of oil and gas it may be said that drainage, in a narrow and limited sense, may be effected by adjacent wells. * * * Hence, to make out such a case, it would be necessary to show wells in close proximity to the leased premises, and producing substantial quantities of oil or gas."¹⁰ "There is no presumption that a well drains in a uniform degree the oil-bearing rock surrounding the same, assuming that the formation is fairly regular. This presumption could not apply where the territory was spotted."¹¹ "There is, as we may readily conclude, a general consensus of opinion among those engaged in the production of oil and gas as a business that these substances may be drawn from one tract through wells on other tracts, but that the distance is merely conjectural. But how much or how far no one can answer."¹²

We are now brought to the consideration of the crucial point of our discussion under this heading. We again advert to the fact that oil and gas in their natural state do not migrate laterally, but to the contrary, maintain their original *situs*. The only circumstance which induces their perceptible movement is a well penetrating the producing strata, and even then drainage is not an inevitable result. Whether there is any drainage by adjacents wells in a particular case, and the extent of that drainage, are pure questions of fact to be determined by the capacity of the adjoining wells, the porosity of the sand, regularity of the producing formation, the degree of rock pressure, and such other circumstances as would control the judgment of a practical operator in reaching a conclusion respecting the matter of drainage. When the earlier

Ky. 435, 111 S. W. 374 (1908); *Osborn v. Arkansas Territorial Oil Co.*, 103 Ark. 175, 146 S. W. 122 (1912); *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S. W. 717 (1915); *Rives v. Gulf Refining Co.*, 133 La. 178, 62 So. 623 (1913); *DeMoss v. Sample*, 143 La. 243, 78 So. 482 (1918); *Lanyon Zinc Co. v. Freeman*, 68 Kan. 691, 75 Pac. 995 (1904); *Mound City Brick & Gas Co. v. Goodspeed*, 83 Kan. 136, 109 Pac. 1002 (1910); *Kolachney v. Galbreath*, 26 Okla. 772, 110 Pac. 902 (1910); *Frank Oil Co. v. Belleview Gas Co.*, 29 Okla. 719, 119 Pac. 260 (1911); *Rich v. Doneghey*, 177 Pac. (Okla.) 86 (1918); *Kimbley v. Luckey*, 179 Pac. (Okla.) 928 (1919).

⁹ *Westmoreland Gas Co. v. DeWitt*, *supra*; *Tyner v. Peoples Gas Co.*, 131 Ind. 277, 31 N. E. 59 (1892); *Manufacturers' Gas Co. v. Indiana Gas Co.*, *supra*; *State v. Ohio Oil Co.*, 150 Ind. 21, 49 N. E. 809 (1898); *Wood County Petroleum Co. v. Transportation Co.*, 28 W. Va. 210 (1886).

¹⁰ *Hall v. South Penn Oil Co.*, 71 W. Va. 82, 76 S. E. 124 (1912).

¹¹ *Ammons v. South Penn Oil Co.*, 47 W. Va. 610, 35 S. E. 1004 (1900); *Duffield v. Rosenzweig*, 144 Pa. 520, 23 Atl. 4 (1891).

¹² *Jennings v. Southern Carbon Co.*, 73 W. Va. 215, 80 S. E. 368 (1913).

cases were decided the courts possessed little, if any, accurate knowledge of the nature and habits of these minerals. Inasmuch as they presumed to take judicial notice of the peculiar characteristics thereof, they fell into two errors which, unfortunately, have persevered throughout the decisions. In the first place, the conception was adopted that oil and gas in a state of nature move within the structure. If that were true, oil and gas in varying degrees would escape from the lands of one owner to the lands of another where the two tracts were underlaid by a common deposit, even though there was no drainage by wells. In the second place, a close examination of the cases indicates that the courts are inclined to over-emphasize the existence and extent of drainage by adjacent operations. The first proposition is demonstrated by the following language in the cases: Oil and gas have the power of self-transmission.¹³ They move from one tract of land to another by percolation,¹⁴ and they possess the power to escape from one tract of land to another without the volition of the owner.¹⁵ They move from one tract of land to another, being a part of the land under which they tarry for the time being.¹⁶ Petroleum and natural gas shift in locality and are inclined to run from place to place.¹⁷ In a recent Texas case it is said: "For the natural result of stopping the production of oil or gas from the tract on which it was discovered in paying quantities for such a period of time would be to invite its drainage to adjacent tracts, *to say nothing of the danger of the oil's migration.*"¹⁸ The danger of loss to the lessor through the movement of the oil and gas to neighboring lands results in the construction of oil and gas leases in favor of the lessor and against the lessee.¹⁹ It is true that these expressions attributing the capacity of self-transmission to oil and gas are usually coupled with references to the probability of drainage by operations on adjoining premises; but the two statements appear in the disjunctive, thereby indicating that the courts are firm in the conviction that there are two distinct circumstances which cause drainage: first, the propensity of the oil and gas to wander at will within the structure where there are no

¹³ *Ohio Oil Co. v. Indiana*, 177 U. S. 190 (1900); *Reichard v. Cowley*, 80 So. (Ala., 1918) 419.

¹⁴ *Kelly v. Ohio Oil Co.*, 57 Ohio St. 317, 49 N. E. 399 (1897); *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S. W. 717 (1915).

¹⁵ *Poe v. Ulrey*, 233 Ill. 56, 84 N. E. 46 (1908); *Lanyon Zinc Co. v. Freeman*, 68 Kan. 691, 75 Pac. 995 (1904); *Osborn v. Arkansas Territorial Oil Co.*, 103 Ark. 175, 146 S. W. 122 (1912).

¹⁶ *Kelly v. Ohio Oil Co.*, 57 Ohio St. 317, 49 N. E. 399 (1897).

¹⁷ *Logan Natural Gas Co. v. Great Southern Gas Co.*, 126 Fed. 623 (1903).

¹⁸ *Grubb v. McAfee*, 212 S. W. (Tex.) 464 (1919).

¹⁹ *Superior Oil Co. v. Mehlin*, 25 Okla. 809, 108 Pac. 545 (1910).

neighboring operations; and secondly, migration induced by wells penetrating the strata. This conclusion is further supported by that line of cases which finds a complete analogy between the habits of oil and gas and animals *ferae naturae*.²⁰ Obviously, wild animals in a state of nature wander at will, and when an absolute resemblance is found between the two we are brought to the irresistible conclusion that the courts entertain the fixed idea that oil and gas likewise are vagrant even in their natural state.

This fundamental misconception of the nature and habits of oil and gas has produced great confusion of judicial thought upon the subject. From the very beginning of the industry the storm-center of litigation in the jurisprudence has been the degree of diligence which an oil and gas lessee should exercise in the development of the lands covered by his lease. The books abound in cases where lessors sought the cancellation of leases on the ground that the lessee had not observed the measure of diligence in the operation of the property which was stipulated in the lease or which was implied by law. Equally numerous are suits for the specific performance of these obligations, or for damages for the breach thereof. Manifestly, the peculiar nature of the subject-matter will have an important if not controlling influence in the decision of these questions. If, therefore, the courts entertain a false conception of the inherent nature and habits of the subject-matter, pronounced error necessarily follows. Supplementing what we have said regarding the viewpoint of the courts on this question we find these expressions in the decisions: "Perhaps in no other business is prompt performance of contracts so essential to the rights of the parties, or delay by one party likely to prove so injurious to the other."²¹ This judicial announcement is repeated in a late Kentucky case.²² In an early Federal case originating in West Virginia it is said: "There is, perhaps, no other business in which prompt performance is so essential to the rights of the parties, or delay so likely to prove injurious—no other class of contracts in which time is so much of the essence. There is no other branch of mining where greater damage is done by delay. Coal and precious metals lie in horizontal veins or in pockets. They remain where they are until removed. Oil and gas are the most uncertain,

²⁰ *Westmoreland Gas Co. v. DeWitt*, 130 Pa. 235, 18 Atl. 724 (1889); *Hague v. Wheeler*, 157 Pa. 324, 27 Atl. 714 (1893); *Wood County Petroleum Co. v. Transportation Co.*, 28 W. Va. 210 (1886); *State v. Ohio Oil Co.*, 150 Ind. 21, 49 N. E. 809 (1898); *In re Illuminating Oil Co.*, 43 Okla. 307, 142 Pac. 997 (1914); *Rich v. Doneghey*, 177 Pac. (Okla.) 86 (1918); *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S. W. 717 (1915).

²¹ *Munroe v. Armstrong*, 96 Pa. 307 (1880).

²² *Hughes v. Busseyville Oil & Gas Co.*, 180 Ky. 545, 203 S. W. 515 (1918).

fluctuating, volatile and fugitive of all mining properties.”²³ In the later cases the courts do not receive proof upon the nature of oil and gas, nor have their views in this regard kept pace with the expansion of practical and scientific knowledge upon the subject. Inasmuch as they predicate their conception of the matter upon judicial knowledge alone, the expressions found in the earlier decisions relating to the question are persistently repeated in the later cases. Hence the error perseveres.

The consequence of this basic misconception of the fugitive habits of oil and gas is immediately apparent. If, as the courts hold, oil and gas move from one tract of land to another even in the absence of wells producing this result, the interests of the landowner from whose tract the oil has a tendency to escape demand the prompt development of the property in order to prevent drainage. In order to meet the necessities of the situation two doctrines of far-reaching importance were enunciated in the early cases: first, it was declared that all covenants in an oil and gas lease respecting the time and extent of operations should be construed strictly against the lessee and in favor of the lessor for the purpose of preventing drainage. The second principle was that certain implied covenants or conditions would be read into the lease in order to bring about the prompt development of the premises. The vice which attaches to this position lies in the fact that oil and gas, like solid minerals, maintain their original place of deposit excepting when withdrawn through neighboring wells. Therefore, when the record fails to show drainage by adjacent operations, there is no reason for greater diligence in the development of an oil property than in the case of any other mining venture. By degrees, as is evidenced by the later cases, the courts are receding from the controlling influence of these doctrines, and are holding oil and gas lessees to the measure of diligence expressly provided for in the leases, just as would be the case if solid minerals were involved. In brief, the present tendency of the courts is to construe these contracts as written rather than in the light of the two doctrines already alluded to. At the same time the courts in the more recent oil-producing states not possessing a grasp of the entire range of oil and gas cases are always subject to the influence of these early decisions. In proceeding with this inquiry, therefore, it is of the highest importance to read the early cases, restrained by a definite understanding that they were decided in the light of a mistaken conception of the true nature of oil and gas.

²³ *Huggins v. Daley*, 99 Fed. 606 (1900).

(3) *Oil and Gas in Place.*

It is well settled in every jurisdiction that oil and gas in place are minerals, and as such are part of the realty,²⁴ but upon severance they become personalty.²⁵ It is said that oil and gas are minerals, and while in place are as much a part of the realty as timber, coal, or iron ore.²⁶ The term "minerals" is not confined to metallic substances.²⁷ Oil and gas are minerals because they are found beneath the surface of the earth and yield a profit,²⁸ and also because they fall within the classification of minerals, under the broad division of all matter into animal, vegetable and mineral,²⁹ but oil

²⁴ *Kier v. Peterson*, 41 Pa. 357 (1862); *Funk v. Haldeman*, 53 Pa. 229 (1867); *Appeal of Stoughton*, 88 Pa. 198 (1879); *Gill v. Weston*, 110 Pa. 305, 312, 1 Atl. 921 (1885); *Hague v. Wheeler*, 157 Pa. 324, 27 Atl. 714 (1893); *Blakeley v. Marshall*, 174 Pa. 425, 34 Atl. 564 (1896); *Williamson v. Jones*, 39 W. Va. 231, 19 S. E. 436 (1894); *Wilson v. Youst*, 43 W. Va. 826, 28 S. E. 781 (1897); *Haskell v. Sutton*, 53 W. Va. 206, 44 S. E. 533 (1903); *Rymer v. South Penn Oil Co.*, 54 W. Va. 530, 46 S. E. 559 (1904); *Warren v. Boggs*, 97 S. E. (W. Va., 1918) 589; *Pittsburgh Gas Co. v. Ankrom*, 97 S. E. (W. Va., 1918) 593; *Brown v. Spilman*, 155 U. S. 665 (1895); *Kelly v. Ohio Oil Co.*, 57 Ohio St. 317, 49 N. E. (1897); *Northwestern Ohio Gas Co. v. Ullery*, 68 Ohio St. 259, 67 N. E. 494 (1903); *Nonamaker v. Amos*, 73 Ohio St. 163, 76 N. E. 949 (1905); *Hughes v. United Pipe Lines*, 119 N. Y. 423, 23 N. E. 1042 (1890); *Wagner v. Mallory*, 169 N. Y. 501, 62 N. E. 584 (1902); *Richmond Natural Gas Co. v. Davenport*, 37 Ind. App. 25, 76 N. E. 525 (1905); *Rupel v. Ohio Oil Co.*, 176 Ind. 4, 95 N. E. 225 (1911); *Kahle v. Crown Oil Co.*, 180 Ind. 131, 100 N. E. 681 (1913); *Fairbanks v. Warrum*, 56 Ind. App. 337, 104 N. E. 983 (1914); *Poe v. Ulrey*, 233 Ill. 56, 84 N. E. 46 (1908); *Watford Oil & Gas Co. v. Shipman*, 233 Ill. 9, 84 N. E. 53 (1908); *Lanyon Zinc Co. v. Freeman*, 68 Kan. 691, 75 Pac. 995 (1904); *Mound City Brick Co. v. Goodspeed*, 83 Kan. 136, 109 Pac. 1002 (1910); *Isom v. Rex Crude Oil Co.*, 147 Cal. 659, 663, 82 Pac. 319 (1905); *Chino Land & Water Co. v. Hamaker*, 178 Pac. (Cal., 1918) 738; *In re Indian Ty. Illuminating Co.*, 43 Okla. 307, 142 Pac. 997 (1914); *Barker v. Campbell-Ratcliff Land Co.*, 167 Pac. (Okla., 1917) 468; *Rich v. Doneghey*, 177 Pac. (Okla., 1918) 86; *Kimbley v. Luckey*, 179 Pac. (Okla., 1919) 928; *Hall v. Reed*, 15 B. Monroe (Ky., 1854) 479; *Murray v. Allred*, 100 Tenn. 100, 43 S. W. 355 (1897); *Osborn v. Arkansas Territorial Oil Co.*, 103 Ark. 175, 146 S. W. 122 (1912); *Whited v. Johnson*, 167 S. W. (Tex., 1914) 812; *Texas Co. v. Daugherty* 107 Tex. 226, 176 S. W. 717 (1915); *Etchison Drilling Co. v. Flournoy*, 131 La. 442, 59 So. 867 (1912); *Rives v. Gulf Refining Co.*, 133 La. 178, 62 So. 623 (1913).

²⁵ *Hail v. Reed*, *supra*; *Osborn v. Arkansas Territorial Oil Co.*, *supra*; *Kier v. Peterson*, *supra*; *Appeal of Stoughton*, *supra*; *Cassell v. Crothers*, 193 Pa. 359, 44 Atl. 446 (1899); *Carter v. Tyler County Court*, 45 W. Va. 806, 32 S. E. 216 (1899); *Warren v. Boggs*, *supra*; *Kelly v. Ohio Oil Co.*, *supra*; *Crystal Ice Co. v. Marion Gas Co.*, 35 Ind. App. 295, 74 N. E. 15 (1905).

²⁶ *Wilkinson v. Jones*, 39 W. Va. 231, 19 S. E. 436 (1894); *Rymer v. South Penn Oil Co.*, 54 W. Va. 530, 46 S. E. 559 (1904); *Northwestern Ohio Gas Co. v. Ullery*, 68 Ohio St. 259, 67 N. E. 494 (1903); *Rupel v. Ohio Oil Co.*, 176 Ind. 4, 95 N. E. 494 (1911); *Osborn v. Arkansas Territorial Oil Co.*, 103 Ark. 175, 146 S. W. 122 (1912).

²⁷ *Poe v. Ulrey*, 233 Ill. 56, 84 N. E. 46 (1908); *Murray v. Allred*, 100 Tenn. 100, 43 S. W. 355 (1897).

²⁸ *Sult v. Hochstetter Oil Co.*, 63 W. Va. 317, 61 S. E. 307 (1908); *Freudenberger v. Simmons*, 75 W. Va. 337, 83 S. E. 995 (1914); *Horse Creek Land Co. v. Midkiff*, 81 W. Va. 616, 95 S. E. 266 (1918); *Gill v. Weston*, 110 Pa. 305, 312, 1 Atl. 921 (1885); *Murray v. Allred*, *supra*.

²⁹ *Silver v. Bush*, 213 Pa. St. 195, 62 Atl. 832 (1906); *Banard-Argue-Roth-Stearns Oil & Gas Co. v. Farquharson*, Am. Ann. Cas. 1913 B, p. 1212 (1912).

and gas are not synonymous terms.³⁰ Notwithstanding the fugitive character of these minerals, they may be granted or reserved separate and apart from the surface,³¹ in which event they constitute a distinct corporate estate.³² A grant or reservation of oil and gas under the surface carries the right to use so much of the surface as is reasonably necessary for mining such mineral.³³ Where oil and gas are severed from the surface by deed or reservation, possession of the surface is not possession of the oil or gas, mining operations being essential to possession thereof.³⁴ While oil and gas may be granted or reserved distinct from the surface, a co-tenant may not grant or reserve the oil or gas attributable to his interest, because in so doing a new and distinct tenancy in common is created against the other tenants in common.³⁵ Recurring again to the main question—namely, that oil and gas may be granted or reserved apart from the surface—it should be observed that an element of confusion has crept into the cases in some jurisdictions where the subject was dealt with. In Oklahoma, in two comparatively early cases which involved the nature of oil and gas leases rather than deeds conveying oil and gas, the court laid down the broad doctrine that oil and gas while in the earth, unlike solid minerals, are not the subject of ownership distinct from the soil, and

³⁰ *Kitchen v. Smith*, 101 Pa. St. 452 (1882); *Truby v. Palmer*, 3 Penn. Sup. Court Cases 156, 6 Atl. 74 (1886); *Allen v. Palmer*, 136 Pa. 556, 20 Atl. 516 (1890); *Wood Co. Petroleum Co. v. W. Va. Transportation Co.*, 28 W. Va. 210 (1886); *Ball v. Freeman*, 77 W. Va. 156, 87 S. E. 91 (1915); *Cooke v. Gulf Refining Co.*, 127 La. 592, 53 So. 874 (1911); *Barnard-Argue-Roth-Stearns Oil & Gas Co. v. Farquharson*, *supra*.

³¹ *Lillibridge v. Coal Co.*, 143 Pa. 293, 22 Atl. 1035 (1891); *Chartiers Coal Co. v. Mellon*, 152 Pa. 286, 25 Atl. 597 (1893); *Jennings v. Beale*, 158 Pa. 283, 27 Atl. 948 (1893); *Mandel v. Gharing*, 256 Pa. 121, 100 Atl. 535 (1917); *Preston v. White*, 57 W. Va. 278, 50 S. E. 236 (1905); *Columbia Gas Co. v. Moore*, 81 W. Va. 164, 93 S. E. 1051 (1917); *Carter v. Esten*, 30 Ky. Law Rep. 1144, 100 S. W. 308 (1907); *Ball v. Clark*, 150 Ky. 383, 150 S. W. 359 (1912); *Murray v. Allred*, *supra*; *Graciosa Oil Co. v. Santa Barbara*, 155 Cal. 140, 99 Pac. 483 (1909); *Osborn v. Arkansas Territorial Oil Co.*, *supra*; *Whited v. Johnson*, 167 S. W. (Tex., 1914) 812; *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S. W. 717 (1915); *McConnell v. Pierce*, 210 Ill. 627, 71 N. E. 622 (1904); *Moore v. Griffin*, 72 Kan. 164, 83 Pac. 395 (1905); *Barker v. Campbell-Ratcliff Land Co.*, 167 Pac. (Okla., 1917) 468; *Ramey v. Stephney*, 173 Pac. (Okla., 1918) 72; *DeMoss v. Sample*, 143 La. 243, 78 So. 482 (1918); *Calhoun v. Ardis*, 144 La. 311, 80 So. 548 (1919).

³² *Preston v. White*, *supra*; *Texas Co. v. Daugherty*, *supra*; *Jennings v. Beale*, *supra*; *Chartiers Coal Co. v. Mellon*, *supra*.

³³ *Ramey v. Stephney*, *supra*; *Curtiss v. Chartiers Oil Co.*, 88 Ohio St. 594, 106 N. E. 1053 (1913); *Chartiers Coal Co. v. Mellon*, *supra*.

³⁴ *Jackson v. Dulaney*, 67 W. Va. 309, 67 S. E. 795 (1910); *Murray v. Allred*, *supra*; *Northcut v. Church*, 135 Tenn. 541, 188 S. W. 220 (1916); *Scott v. Laws*, 215 S. W. (Ky., 1919) 81; *Westmoreland Gas Co. v. DeWitt*, 130 Pa. 235, 18 Atl. 724 (1889); *Erskine v. Forest Oil Co.*, 80 Fed. 583 (1895).

³⁵ *Ball v. Clark*, 150 Ky. 383, 150 S. W. 359 (1912); *Hall v. Vernon*, 47 W. Va. 297, 34 S. E. 764 (1899). See also: *Benedict v. Torrent*, 83 Mich. 181; *Adams v. Briggs Iron Co.*, 7 Cush. (Mass.) 361; *Boston Franklinite Co. v. Conditt*, 19 N. J. Eq. 394.

the grant of the oil and gas, therefore, is a grant not of the oil that is in the ground but of such a part as the grantee may find.³⁶ But in later cases, where conveyances of oil and gas were directly involved instead of oil and gas leases, the court stated that the language in *Kolachney v. Galbreath* and *Frank Oil Company v. Belleview Gas Company* should be limited to oil and gas leases; and it was here held that the right to go upon land for the purpose of prospecting and taking oil and gas therefrom is a proper subject of sale, and may be granted or reserved.³⁷ It is to be noted that the Oklahoma court distinguishes between a grant or reservation of oil and gas in place and the grant or reservation of the right to explore for and take these minerals. This distinction is wholly superficial. The Louisiana court also found it necessary to explain some of the earlier holdings of that court on this question. In *Rives v. Gulf Refining Company*, where the nature of an oil and gas lease was involved, the court announced the same broad doctrine which had been previously enunciated by the Oklahoma court.³⁸ In later cases, however, involving the conveyance of oil and gas, that court limited the application of the *Rives* case and affirmed the principle that oil and gas was susceptible of severance from the surface by grant, reservation or exception.³⁹ In Illinois, where the nature of an oil and gas lease was under consideration, it was held that these minerals were not the subject of ownership distinct from the surface.⁴⁰ Yet this court, in a former case, had held that even an oil and gas lease constituted a freehold interest in the land.⁴¹ A most instructive case on this general question is *Texas Company v. Daugherty*.⁴² It is worthy of comment that the court had under consideration a lease for oil and gas mining purposes rather than a deed, but by the plain terms of the lease it was sought to grant the oil and gas in place rather than a mere license or privilege to explore. The court adverted to the tendency in some jurisdictions to distinguish between a conveyance of oil and gas in place and a conveyance of solid minerals. This position was definitely answered by the following observation: "Being a part of the realty

³⁶ *Kolachney v. Galbreath*, 26 Okla. 772, 110 Pac. 902 (1910); *Frank Oil Co. v. Belleview Gas Co.*, 29 Okla. 719, 119 Pac. 260 (1911).

³⁷ *Barker v. Campbell-Ratcliff Land Co.*, 167 Pac. (Okla., 1917) 468. To the same effect: *Ramey v. Stephney*, 173 Pac. (Okla., 1918) 72.

³⁸ *Rives v. Gulf Refining Co.*, 133 La. 178, 62 So. 623 (1913).

³⁹ *DeMoss v. Sample*, 143 La. 243, 78 So. 482 (1918); *Calhoun v. Ardis*, 144 La. 311, 80 So. 548 (1919).

⁴⁰ *Watford Oil & Gas Co. v. Shipman*, 233 Ill. 9, 84 N. E. 53 (1908).

⁴¹ *Bruner v. Hicks*, 230 Ill. 556, 82 N. E. 888 (1907).

⁴² *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S. W. 717 (1915).

while in place, it would seem to logically follow that whenever they are conveyed, *while in that condition or possessing that status*, a conveyance of an interest in the realty results." After referring to those cases which apparently draw a distinction between the conveyance of solid minerals in place and the conveyance of oil and gas in place, on the ground that the latter are vagrant in character, this court continues: "But it is difficult to perceive a substantial ground for the distinction. A purchaser of them within the ground assumes the hazard of their absence through the possibility of their escape from beneath the particular tract of land, and, of course, if they are not discovered the conveyance is of no effect, just as the purchaser of solid minerals within the ground incurs the risk of its absence, and therefore a futile venture. But let it be supposed that they have not escaped and are in repose within the strata beneath the particular tract and capable of possession by appropriation from it. There they clearly constitute a part of the realty. Is the possibility of their escape to render them, while in place, incapable of conveyance, or is their ownership while in that condition, with the exclusive right to take them from the land, anything less than ownership of an interest in the land? Conceding that they are fluent in their nature, and may depart from the land before brought into absolute possession, will it be denied that so long as they have not departed they are a part of the land? * * *

The argument ignores the equal possibility of their presence, and that the parties have contracted upon the latter assumption. * * *

In other words, the question, it seems to us, reduces itself to this: If the oil and gas, the subject of the conveyance, are in fact not beneath or within the land, and are therefore not capable of being reduced to possession, the conveyance is of no effect. But if they have not departed and are beneath it, they are there as a part of the realty; and their conveyance while in place, if the instrument be given any effect, is consequently the conveyance of an interest in the realty." The reasoning of this case is unanswerable, and the conclusions there reached are not only supported by principle but are likewise upheld by the overwhelming weight of authority, as has already been indicated. As a corollary to this proposition it may be said further that the grant, reservation or exception of all minerals without reference to oil and gas in specific terms, includes those substances.⁴³ On this point it is held in California

⁴³ *Sult v. Hochstetter Oil Co.*, 63 W. Va. 317, 61 S. E. 307 (1908); *Freudenberger v. Simmons*, 75 W. Va. 337, 83 S. E. 995 (1914); *Columbia Gas & Electric Co. v. Moore*, 81 W. Va. 164, 93 S. E. 1051 (1917); *Horse Creek Land Co. v. Midkiff*, 81 W. Va. 616,

that a reservation of mineral land from a railroad land grant made under authority of an act of Congress includes lands valuable for petroleum, although the act under consideration was adopted in 1871, when the exploration of lands for these purposes in the West could not have been in the contemplation of Congress.⁴⁴ While the foregoing states the general rule, the English courts and the courts of Pennsylvania and Ohio seem to stand in opposition thereto.⁴⁵ The *Banard case* was appealed to the English Privy Council from the Province of Ontario, and the question involved was whether natural gas was included in a reservation of all minerals and springs of oil under the land. The court specifically held that natural gas was a substance essentially different from oil, and that the reservation of gas would not be included in that term. It was in evidence that natural gas had no commercial value until long after the date of the deed, and that, therefore, natural gas could not have been in the minds of the parties when the deed was made. The leading Pennsylvania case on this question is *Dunham v. Kirkpatrick*.⁴⁶ In commenting on the attitude of the Pennsylvania court on this subject it must be kept in mind that from the beginning of the industry in that state it is consistently held that oil and gas are minerals,⁴⁷ the only exception being when that term is used in conveyancing. In the *Dunham case* the principle is announced that a reservation of all minerals in a conveyance did not include oil and gas because, in the popular mind, metallic substances only were regarded as minerals. In brief, the minds of the parties did not meet on the question that oil and gas were included in the reservation. A later decision of that court is in direct conflict with the

95 S. E. 26 (1918); *Murray v. Allred*, 100 Tenn. 100, 43 S. W. 355 (1897); *Scott v. Laws*, 215 S. W. (Ky., 1919) 81; *Weaver v. Richards*, 156 Mich. 320, 120 N. W. 818 (1909); *Barker v. Campbell-Ratcliff Land Co.*, 167 Pac. (Okla., 1917) 468; *McCombs v. Stephenson*, 154 Ala. 109, 44 So. 867 (1907); *Calhoun v. Ardis*, 144 La. 311, 80 So. 548 (1919); *Luse v. Boatman* 217 S. W. (Tex., 1919) 1096. See also Ky. *Diamond Mining, etc. v. Transvaal Diamond Co.*, 141 Ky. 97, 132 S. W. 397, Ann. Cas. 1912 C, 417.

⁴⁴ *Chino Land & Water Co. v. Hamaker*, 178 Pac. (Cal., 1918) 738. See also: *Burke v. Southern Pacific Co.*, 234 U. S. 669 (1914); *United States v. Southern Pacific Co.*, Advance Op. Dec. 15, 1919, p. 55.

⁴⁵ *Banard-Argue-Roth-Stearns Oil & Gas Co. v. Farquharson*, Am. Ann. Cas. 1913 B, p. 1212 (1912); *Dunham v. Kirkpatrick*, 101 Pa. St. 36 (1882); *Silver v. Bush*, 213 Pa. 195, 62 Atl. 832 (1906); *Preston v. South Penn Oil Co.*, 238 Pa. 301, 86 Atl. 203 (1913); *Detlor v. Holland*, 57 Ohio St. 492, 49 N. E. 690 (1898).

⁴⁶ *Dunham v. Kirkpatrick*, *supra*.

⁴⁷ *Funk v. Haldeman*, 53 Pa. St. 229 (1867); *Appeal of Stoughton*, 88 Pa. St. 198 (1879); *Gill v. Weston*, 110 Pa. 305, 312, 1 Atl. 921 (1885); *Westmoreland Gas. Co. v. DeWitt*, 130 Pa. 235, 18 Atl. 724 (1889); *Hague v. Wheeler*, 157 Pa. 324, 27 Atl. 714 (1893).

principle so asserted.⁴⁸ In the case just alluded to the court construed an act of the Pennsylvania legislature adopted in 1856 and before petroleum was discovered, and therein held that the term "mining lands" as used in this statute included lands from which oil was produced. At least two courts, in criticizing the doctrine of *Dunham v. Kirkpatrick*, maintain that *Gill v. Weston* is in direct conflict therewith.⁴⁹ Notwithstanding the apparent overruling of the *Dunham case*, that court had occasion to again affirm the doctrine thereof in decisions laid down after the announcement of *Gill v. Weston*.⁵⁰ In these later cases, however, it is specifically held that parol evidence was admissible bearing on the fact that at the time the conveyances were made the parties understood the term "mineral" to include oil and gas. The holding in the *Dunham case* is vigorously assailed in West Virginia as being out of line with the numerous decisions in Pennsylvania to the effect that the term "mineral" includes oil and gas.⁵¹ However, Ohio follows the principle laid down in the *Dunham case*.⁵² While Kentucky, in a late case, affirms the majority rule, it is held in that jurisdiction that a conveyance of minerals made in 1871 did not include natural gas, but this decision was founded on the terms of the instrument itself, which plainly indicated that natural gas was not in the contemplation of the parties at the time the conveyance was made.⁵³ Even the West Virginia court, which adheres to the majority rule most rigidly, concedes that a grant or reservation of minerals in general terms may, in certain circumstances, be susceptible of an interpretation which will exclude oil and gas.⁵⁴ In another jurisdiction the nature of the deed considered was such that the court held that a deed of minerals did not include oil and gas, the conveyance under consideration being a right of way deed.⁵⁵ But, as already stated, the great weight of authority supports the proposition that a grant, reservation or exception of minerals, without specific reference to oil and natural gas, includes those substances.

⁴⁸ *Gill v. Weston*, *supra*.

⁴⁹ *Murray v. Allred*, 100 Tenn. 100, 43 S. W. 355 (1897); *McCombs v. Stephenson*, 154 Ala. 109, 44 So. 867 (1907). See also *Barker v. Campbell*, 167 Pac. (Cal., 1918) 468, L. R. A. 1918 A, 487.

⁵⁰ *Silver v. Bush*, 213 Pa. 195, 62 Atl. 832 (1906); *Preston v. South Penn Oil Co.*, 238 Pa. 301, 86 Atl. 203 (1913).

⁵¹ *Sult v. Hochstetter Oil Co.*, 63 W. Va. 317, 61 S. E. 307 (1908).

⁵² *Detlor v. Holland*, 57 Ohio St. 492, 49 N. E. 690 (1898).

⁵³ *McKinney's Heirs v. Central Kentucky Gas Co.*, 134 Ky. 239, 120 S. W. (Ky., 1909) 314.

⁵⁴ *Columbia Gas & Electric Co. v. Moore*, 81 W. Va. 164, 93 S. E. 1051 (1917); *Horse Creek Land Co. v. Midkiff*, 81 W. Va. 616, 95 S. E. 26 (1918).

⁵⁵ *Gladys City Oil Co. v. Right of Way Oil Co.*, 106 Tex. 94, 137 S. W. 171 (1911).

(4) *Title to Oil and Gas in Place.*

This question presents but an aspect of the preceding subject. Owing to its vast importance, however, it must be treated separately. If oil and gas in place are a part of the realty under the authorities already cited, it would seem to follow as a logical consequence that the owner of the fee has the same absolute title to the oil and gas in place as he would have in the case of solid minerals. Notwithstanding this plain deduction, there is so much confused thought on the subject that a critical inquiry is demanded. Viewing the cases in their entirety, the great weight of authority supports the principle that the owner of the fee, or the owner of the oil and gas by a separate estate, holds an absolute title to these minerals while in place with the same legal effect as would be true in the case of solid minerals. The exception to this rule prevails in Indiana; but even here the tendency is in the direction of the majority rule. Notwithstanding the posture of the cases on this question, we find several recent decisions which indicate the obscurity of judicial thought on the subject. Many of the decisions which are in apparent conflict with the majority rule may be susceptible of explanation by the observation that the rights thereunder consideration were the rights of an oil and gas lessee rather than the rights of the owner of the fee, or one claiming a separate estate in the oil and gas. But at least two recent cases cannot be disposed of upon that theory. In *Lindley v. Raydure*,⁵⁶ which, in other respects, is a remarkably well written opinion on the law of oil and gas, Judge Cockran, District Judge for the Eastern District of Kentucky, announced the broad principle that an oil and gas lessee takes no title to the oil and gas which may be in the land, for the reason that the lessor himself has no estate therein, and that this is true because of the fugacious nature of such substances. It is to be noted here that the learned court goes to the greatest extreme in denying to the owner of the fee any title to the oil and gas in place. It is not stated that the landowner has a qualified estate in the oil and gas before reduced to possession, or that he does not have an absolute estate therein until that circumstance transpires. The decision is a square announcement of the principle that, so far as the oil and gas in place are concerned, the landowner has no title thereto whatsoever. This holding is founded on the decision of the Supreme Court of the United States in *Ohio Oil Company v. Indiana*, which will be discussed later.⁵⁷ *Lindley v.*

⁵⁶ *Lindley v. Raydure*, 239 Fed. (Ky., 1917) 928.

⁵⁷ *Ohio Oil Co. v. Indiana*, 177 U. S. 190 (1900).

Raydure was affirmed by the Circuit Court of Appeals for the Sixth Circuit.⁵⁸ So, likewise, the Supreme Court of Oklahoma, in a very recent case,⁵⁹ sustains the doctrine that the owner of the fee has no absolute title to oil and gas in place, but the right only to drill for oil and gas, coupled with the further right of absolute ownership in the substances when reduced to possession by these operations. This decision also is founded on the so-called Indiana rule, as announced in the *Ohio Oil Company case*. It is, perhaps, pertinent to observe that before this decision was rendered the Federal Court in Oklahoma held that the so-called Indiana doctrine was the only exception to the general rule that oil and gas in place are the absolute property of the owner of the fee.⁶⁰

It must be obvious that a clear understanding of the exact character of the title of the owner of the fee to oil and gas is indispensable at this stage of our investigation. This is true because that conception, either rightly or wrongly reached, will influence our point of view upon nearly every other question which is involved in this inquiry. Neither the textbook writers nor the commentators approach exactness in the statement of the principle here involved, and the language of many of the decisions simply tends to confuse our understanding. First of all, then, we must ascertain the nature of the estate in oil and gas possessed by the owner of the fee, and as the Indiana cases are the substantial exception to the general rule, it is necessary to examine them minutely. At the beginning, the Indiana court seemed to recognize that the owner of the fee had an absolute title to the oil and gas in place.⁶¹ Later that court adopted the broad assumption that there was a complete analogy between the ownership of oil and gas and the ownership of wild animals and fish—namely, that there was no private ownership therein until they were reduced to possession.⁶² Adhering to this analogy, in a subsequent case it is specifically held that title to natural gas does not vest in any private owner until it is reduced to actual possession. In condemnation of that line of authorities which hold that oil and gas in place are a part of the realty to which they attach themselves for the time being, it is here observed that it would be just as unreasonable to say that natural gas passing through the land of one owner becomes his property as it is to say

⁵⁸ *Raydure v. Lindley*, 249 Fed. 675 (1918).

⁵⁹ *Rich v. Doneghey*, 177 Pac. (Okla., 1918) 86.

⁶⁰ *Kansas Natural Gas Co. v. Haskell*, 172 Fed. 545 (1909).

⁶¹ *Peoples' Gas Co. v. Tyner*, 131 Ind. 277, 408, 31 N. E. 59 (1892); *Greenfield Gas Co. v. Peoples' Gas Co.*, 131 Ind. 599, 31 N. E. 61 (1892).

⁶² *Townsend v. State*, 147 Ind. 624, 47 N. E. 19 (1897).

that wild animals passing thereover become his property while on his land, or that fish, while passing through his stream, become his property while in the waters abutting his land.⁶³ A companion case was appealed to the Supreme Court of the United States, and this resulted in the leading case of *Ohio Oil Company v. Indiana*.⁶⁴ The court here announced the rule of property in Indiana on this question, as follows: "Although, in virtue of his proprietorship, the owner of the surface may bore wells for the purpose of extracting natural gas and oil, until these substances are actually reduced by him to possession, he has no title whatever to them as owner; that is, he had the exclusive right, on his own land, to seek to acquire them, but they do not become his property until the effort has resulted in domination and control by actual possession." Supplementing this announcement, the court, in effect, held that the owners of the surface overlying a gas deposit had such a community interest therein that the State of Indiana, by statute, could prevent the waste of gas by one of the communal owners, as this was a detriment to the other owners. In brief, it was asserted that the purpose of the statute under consideration was to protect each of the owners in common against waste committed by the other tenants in common. In a subsequent case the doctrine of the *Ohio Oil Company* case was broadened to the extent of holding that an injunction would lie at the suit of one of the so-called owners in common of the gas deposit to restrain the waste of gas from the common pool at the instance of one of the other owners of the surface. But the earlier doctrine of the Indiana courts was here relaxed to this extent: The court held that natural gas, even when in the ground in its natural state, possessed in a qualified degree one of the characteristics or attributes of private property, and this ownership was expressly distinguished from the character of ownership in wild animals, which was in the public until reduced to possession.⁶⁵ But in *Rupel v. Ohio Oil Company*⁶⁶ the ultimate consequence of the earlier holdings in Indiana was squarely before the court. Here a life tenant made an oil and gas lease without the joinder of the remainderman. The lessee entered, developed the property and removed a quantity of oil. In this suit for an injunction and for an accounting brought by the remainderman the defense was urged that the lessee was in the lawful possession of the land,

⁶³ *State v. Ohio Oil Co.*, 150 Ind. 21, 49 N. E. 809 (1898).

⁶⁴ *Ohio Oil Co. v. Indiana*, 177 U. S. 190 (1900).

⁶⁵ *Manufacturers' Gas Co. v. Indiana Gas Co.*, 155 Ind. 461, 545, 566, 57 N. E. 912 (1900).

⁶⁶ *Rupel v. Ohio Oil Co.*, 176 Ind. 4, 95 N. E. 225 (1919).

and in that possession appropriated the oil. The case in this posture was fully answered by the doctrine in the *Ohio Oil Company case* to the effect that the fee owner had the exclusive right to drill on his own land and to extract the minerals. But the court, in answering the question, said: "But this rule of property does not in any way modify the general common law that the ownership of the fee of the surface of the earth carries with it the right to the minerals beneath, and the consequent right to extract them. * * * Where oil underlies the surface of land it cannot be denied that, for the time being, it is physically a part of it. To recover it from the earth requires an assault on the integrity of the estate like, if different in degree, to the taking of other minerals." In a still later case it is said: "It is settled by numerous decisions that the natural gas or the petroleum which may be under the surface and not reduced to the actual possession of any person constitutes a part of the land, and belongs to the owner thereof in such sense that he has the exclusive right by operations upon his land to reduce such mineral substance to possession."⁶⁷ In another late case it is said: "Petroleum in and under the earth's surface and not reduced to actual possession of any person constitutes a part of the land, and belongs to the owner thereof, who has the right to reduce the mineral to possession, or grant the privilege of doing so to other persons."⁶⁸ In *Fairbanks v. Warrum*,⁶⁹ the latest Indiana case on this question, it is said: "Noble Warrum at the time of the execution of said lease was the owner of the fee, the owner of everything that went to make up the realty. The natural gas beneath the surface was a part of the realty, and therefore Noble Warrum was the owner of such gas. By reason of the fugitive character of natural gas, however, he was such owner only in a qualified sense. As long as such substance remained beneath the surface of his land he continued to be such owner until, in some manner, he parted with his title thereto. But if, by its natural tendency to flow, it should escape to the lands of an adjoining proprietor, such ownership would thereby cease." It is further said in this opinion that, from a practical standpoint, Warrum was the owner of the gas while it was beneath the surface of his land only, in the sense that he had the exclusive right, by operations on such land, to explore for it and reduce it to possession and a consequent absolute ownership. In the light of these confusing statements by the Indiana court what pre-

⁶⁷ *Richmond Natural Gas Co. v. Davenport*, 37 Ind. App. 25, 76 N. E. 525 (1905).

⁶⁸ *Kahle v. Crown Oil Co.*, 180 Ind. 131, 100 N. E. 681 (1913).

⁶⁹ *Fairbanks v. Warrum*, 56 Ind. App. 337, 104 N. E. 983 (1914).

cise rule can be deduced from the cases in that jurisdiction? At first that court stood on the proposition that there was a complete analogy between the ownership of animals *ferae naturae* and oil and gas in place; that there was no such thing as private ownership in oil and gas until reduced to possession. This extreme position was then modified by the Supreme Court of the United States, which laid down two propositions: first, that while the landowner had no title to the oil or gas in place, he did possess the exclusive right to explore therefor on his own land, and to reduce these substances to absolute ownership when found; and from this it follows that he possessed the right to grant this privilege to others. In the second place it was held, in the case of natural gas at least, that even his right to explore and to reduce to possession was a qualified one, for the reason that he and the other surface owners possessed a common right to explore, each on his own land but into the common reservoir of gas, and that one of these common owners would not be permitted to perpetrate waste to the detriment of the other owners in common. Then the Supreme Court of Indiana, in the *Manufacturers' Gas Company case*, followed the Supreme Court of the United States as to both of these propositions. The cases following this seem to indicate a relaxation of the strictness of the Ohio Oil Company rule. They do recognize that oil and gas in place are a part of the realty, and while in that condition belong to the owner of the fee. In the *Davenport case*⁷⁰ it is said that the fee-owner owns the oil and gas in place in such sense that he has the exclusive right to reduce them to possession. Such also is the announcement in the *Fairbanks case*; but in the *Kahle case* it is said that the oil and gas in place belong to the owner of the land, who has the right to reduce the same to possession. In other words in this last case the court seems to recognize a distinct ownership to the oil and gas in place. In a recent article on "Property in Oil and Gas," appearing in the YALE LAW JOURNAL for December, 1919, Professor Summers, of the University of Kentucky, states that the Indiana court has receded from the extreme viewpoint maintained in the *Ohio Oil Company case*. In the consideration of the Ohio Oil Company and kindred cases these facts must be borne in mind. To begin with, the courts were there concerned with oil and gas leases and the title held thereunder. The nature of the lessor's title was incidentally discussed. In the second place the subject-matter there dealt with was natural gas, instead of oil, which, being a volatile

⁷⁰ *Richmond Natural Gas Co. v. Davenport*, 37 Ind. App. 25, 76 N. E. 525 (1905).

substance, has a greater tendency toward migration than oil, although even here in a state of nature the mineral maintains its *situs*. Finally, a critical examination of the Indiana cases, including the *Ohio Oil Company case* leaves the strong impression that the courts were inclined to put the public welfare above mere considerations of private ownership for the reason that the subject-matter there dealt with, namely, natural gas, possessed very great value as fuel for manufacturing and domestic purposes. When these points of distinction are taken into consideration with the clear relaxation of the original doctrine of the *Ohio Oil Company case*, as evidenced by the later Indiana decisions, the so-called "Indiana rule" loses its importance as an authority on this question.

The Court of Appeals of Kentucky first held that a fee-owner had an absolute title to the oil and gas in place.⁷¹ Then later, where gas alone was involved, that court seems to follow the *Ohio Oil Company case*.⁷² Then again, the Federal Court in Kentucky, in *Lindley v. Raydure*,⁷³ already alluded to, stoutly maintains the original doctrine of the *Ohio Oil Company case*. Oklahoma also apparently follows the early Indiana rule.⁷⁴ Notwithstanding this, it is held in that jurisdiction that the right to explore for oil and gas and to appropriate the same may be granted or reserved.⁷⁵ We have already said that the distinction between a grant or reservation of oil and gas in place in the sense that solid minerals may be granted or reserved, and the grant or reservation of the right to explore for these minerals and appropriate them, if found, is wholly superficial. The holding in *Rich v. Doneghey*, following the Indiana case, and the holdings of *Barker v. Campbell-Ratcliff Land Company* and *Ramey v. Stephney*, cannot be reconciled upon any rational theory. These cases and the nice distinctions drawn therein simply demonstrate the utter confusion of judicial thought on this question in general. The rule in Indiana that the landowners whose tracts overlay a deposit have a common interest therein and that one of the adjoining owners may restrain the waste of gas by one of the other owners is not followed in any state except Kentucky.⁷⁶ The rule in the other states is that the adjoining landowner must protect

⁷¹ *Hail v. Reed*, 15 B. Monroe (Ky., 1854) 470.

⁷² *Gas Company v. Kentucky Heating Co.*, 117 Ky. 71, 77 S. W. 368 (1903).

⁷³ *Lindley v. Raydure*, 239 Fed. 928 (1917).

⁷⁴ *Rich v. Doneghey*, 177 Pac. (Okla., 1918) 86.

⁷⁵ *Barker v. Campbell-Ratcliff Land Co.*, 167 Pac. (Okla., 1917) 468; *Ramey v. Stephney*, 173 Pac. (Okla., 1918) 72.

⁷⁶ *Commonwealth v. Trent*, 117 Ky. 34, 77 S. W. 390 (1903); *Gas Co. v. Heating Co.*, 117 Ky. 71, 77 S. W. 368 (1903); *Gas Co. v. Heating Co.*, 132 Ky. 435, 111 S. W. 374 (1908).

himself by drilling offset wells.⁷⁷ Even in Indiana, where the defendant was using artificial means to produce an undue portion of the gas from the common deposit, which was contrary to the statute of that state, the plaintiff was denied the remedy of injunction because he was using the same methods, although not in the same degree.⁷⁸ In Kentucky it is held that the state may enact a statute to prevent the waste of gas under the conservation policy of the state.⁷⁹ Recurring again to the initial question as to the character of title to oil and gas in place the overwhelming weight of authority supports the proposition that the fee-owner or the owner of a separate estate in the oil and gas holds those minerals while in place by an absolute title and to the same extent exactly as title to solid minerals is vested. In Pennsylvania the question before the Supreme Court of the United States in the *Ohio Oil Company case* was squarely presented, and it was contended that where gas wells were producing from a common reservoir one of the owners wasting the gas should be restrained at the suit of one of the other owners. The trial court, in answering the question as to whether the defendant's right to the gas underlying his land was absolute and independent of the other owners whose tracts overlaid the common reservoir, or qualified and correlative because of the fugitive nature of gas, followed the doctrine of the *Ohio Oil Company case*. The Supreme Court, in reversing this holding, announced that the dominion of the defendant over the gas was as absolute as it would have been in the case of solid minerals, and that the oil and gas in place under his land were his absolute property.⁸⁰ In West Virginia the rule is that oil and gas in place are the property of the owner of the land in the same sense and in the same degree as would be true in the case of solid minerals.⁸¹ In *Williamson v. Jones* also the question of qualified ownership as distinguished from absolute ownership of oil and gas was squarely raised, the decision being that the title was absolute. Such also is the

⁷⁷ *Kelly v. Ohio Oil Co.*, 57 Ohio St. 317, 49 N. E. 399 (1897); *Hague v. Wheeler*, 157 Pa. 324, 27 Atl. 714 (1893); *Jones v. Forest Oil Co.*, 194 Pa. 379, 44 Atl. 1074 (1900); *Barnard v. Monongahela Gas Co.*, 216 Pa. 362, 65 Atl. 801 (1907); *Higgins Oil & Fuel Co. v. Guaranty Oil Co.*, 82 So. (La., 1919) 206.

⁷⁸ *Ilo Oil Co. v. Indiana Natural Gas Co.*, 174 Ind. 635, 92 N. E. 1 (1910).

⁷⁹ *Commonwealth v. Trent*, 117 Ky. 34, 77 S. W. 390 (1903).

⁸⁰ *Hague v. Wheeler*, 157 Pa. 324, 27 Atl. 714 (1893). See also: *Jones v. Forest Oil Co.*, 194 Pa. 379, 44 Atl. 1074 (1900); *Barnard v. Monongahela Gas Co.*, 216 Pa. 362, 65 Atl. 801 (1907); *Chartiers Coal Co. v. Mellon*, 152 Pa. 286, 25 Atl. 597 (1893).

⁸¹ *Brown v. Spilman*, 155 U. S. 665 (1895); *Williamson v. Jones*, 39 W. Va. 231, 19 S. E. 436 (1894); *Williamson v. Jones*, 43 W. Va., 562, 27 S. E. 411 (1897); *Wilson v. Youst*, 43 W. Va. 826, 28 S. E. 781 (1897); *Preston v. White*, 57 W. Va. 278, 50 S. E. 236 (1905).

rule in Ohio,⁸² New York,⁸³ Texas,⁸⁴ Arkansas,⁸⁵ and Tennessee.⁸⁶ This question is not only important from the standpoint of the title held by the fee-owner, but it is of far-reaching consequence in the determination of the nature of the rights created by an oil and gas lease, which will be discussed later.

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(To be continued)

⁸² *Kelly v. Ohio Oil Co.*, 57 Ohio St. 317, 49 N. E. 399 (1897); *Northwestern Ohio Gas Co. v. Ullery*, 68 Ohio St. 259, 67 N. E. 494 (1903).

⁸³ *Hughes v. United Pipe Line Co.*, 119 N. Y. 423, 23 N. E. 1042 (1890).

⁸⁴ *Texas Co. v. Daugherty*, 107 Tex. 226, 176 S. W. 717 (1915).

⁸⁵ *Osborn v. Arkansas Territorial Oil Co.*, 103 Ark. 175, 146 S. W. 122 (1912).

⁸⁶ *Murray v. Allred*, 100 Tenn. 100, 43 S. W. 355 (1897).